APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/558,438	03/19/2007	Koon-Seok Lee	7950.046.00-US	6134

30827   7590   03/17/2010
MCKENNA LONG & ALDRIDGE LLP
1900 K STREET, NW
WASHINGTON, DC 20006

EXAMINER
MITCHELL, DANIEL D

ART UNIT	PAPER NUMBER
2477	

MAIL DATE	DELIVERY MODE
03/17/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/558,438	LEE ET AL.
Office Action Summary	Examiner	Art Unit	
	DANIEL MITCHELL	2477	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>19 November 2009</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-8,10,12-15,17 and 19-21</u> is/are pending in the application.

    4a) Of the above claim(s) <u>9,11,16,18 and 22</u> is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-8, 10, 12-15, 17, and 19-21</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>29 November 2005</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some *   c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>12/18/2009; 10/6/2009</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment filed on 11/19/2009 has been entered. No claims are

amended. Claims 9, 11, 16, 18, and 22 are canceled. Claims 1-8, 10, 12-15, 17, and

19-21 are still pending in this application, with claims 1, 12, and 19 being independent.

Response to Arguments

2.   Applicant's arguments, see pages 6-8, filed 11/19/2009, with respect to 1, 12,

and 19 have been fully considered and are persuasive. The 35 USC 103 rejection of

claims 1, 12, and 19 has been withdrawn.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 1-8, 12-15, 17, and 19-21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kudo et al. (US Publication No. 2003/0065824 A1), hereinafter

referred as Kudo in view of Rosner et al. (US Patent No. 6,105,093), hereinafter

referred as Rosner.

        Regarding claim 1, Kudo discloses a network system, comprising:

        a first network **(fig. 1 and fig. 7 a first network including elements 101-104)**; a

second network separated from the first network **(element 200)**; an appliance

connectable to at least one of the first and second networks **(elements 102-104)**;

and a network manager **(element 101)** connectable to at least one of the first

and second networks, for controlling and monitoring the home appliance **(par. 21**

teaches element 101 controls element 102-104), wherein: the appliance and

the network manager each respectively comprise an interface **(par. 34 and fig. 7**

teaches a network controller 101 and appliance elements 102-107 having a

plurality of interfaces to the networks).

　　　However Kudo does not expressly disclose the interface apparatus

comprises: a first interface module including a first universal

asynchronous receiver and transmitter; and a second interface module

including a second universal asynchronous receiver and transmitter

connected to the first universal asynchronous receiver through a serial

interface for serial communication.

　　　Rosner teaches in fig. 3 an interface apparatus **(17)** including a first

universal asynchronous receiver and transmitter (UART) **(38)** and a second

UART **(39)**. Rosner teaches in fig. 3 and **col. 2 line 56 to col. 3 line 7** the first

and second UART are serial interfaces and are connected to one another. The

UARTs are connected through the CPU for communication **(col. 2 line 56 to col.**

3 line 7 teaches the UART communicating with the UART of the other

interface). The primary reference is modified by the appliance **[fig. 7 appliance**

113] including a first UART interface to network controller 101a and a UART

interface to the IP network 200. Also manager **[network controller 101a]** is modified as having a UART interface to the network of element 113 and another UART interface to the network 200.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Kudo to include utilizing a UART interface. One would be motivated as such in order to implement a cost effective element that can efficiently convert and transfer data to different networks **col. 2 line 56 to col. 3 line 7.**

Regarding claim 2, Kudo discloses wherein the first interface module is based on a predetermined control protocol **(protocol IEEE 1394; see fig. 7 and par. 34)**; connectable to the first network **(first network includes elements 101-104, 113; see fig. 7 and par. 34)**; and transmits or receives for transmitting/receiving a message to or from an inside control means based on a predetermined control protocol **(par. 23 teaches transmitting and receiving messages from a control module 405)**.

Regarding claim 3, Kudo discloses wherein the second interface module is based on the predetermined control protocol **(IP network; see fig. 7 and par. 34)**; connected to the first interface module; and connectable to the second network **(fig. 7 teaches being connected to the IP network; see fig. 7 and**

par. 34).

Regarding claim 4, Kudo discloses wherein the appliance and the network

manager are connected to each other through the first network by the first

interface module **(fig. 7 and par. 34 teaches network controller 101 is**

connected to appliances through the interface 102-104, 113).

Regarding claim 5, Kudo discloses in **par. 23** controllers and devices

wherein the first and second interface each respectively comprise an application

layer using the message **(application service interface)**, a network layer

(TCP/IP), a data link layer **(par. 2 discloses a LAN)** and a physical layer **(par. 5**

discloses DSL lines used in the physical layer) under the predetermined

control protocol (1394 or IP),

However Kudo does not expressly discloses the data link layers

each respectively comprise the universal asynchronous receiver and

transmitter.

Rosner teaches in fig. 3 and col. 2 line 56 to col. 3 lines 7 teaches a first

universal asynchronous receiver and transmitter (UART) **(38)** and a second

UART **(39)** to perform communication over the data link layer.

See similar motivation as claim 1.

Regarding claim 6, Kudo discloses wherein the first interface module is adapted to transmit or receive a message to/from to or from an inside control means **(par. 23 teaches a module 405 for transmitting and receiving messages)**; and the second interface module is based on a predetermined control protocol **(fig. 7 and par. 34 teaches IP network)**; connected to the first interface module **(fig. 4 teaches a module connected to a first network; see also par. 23);** and connectable to the second network **(fig. 4 and par. 23 teaches being connectable to a second network)**.

Regarding claim 7, Kudo discloses in **fig. 7** a network controller 101a and appliance 113 with two interfaces wherein the first interface and second interface comprise an application layer using the message **(application service interface)**, a network layer **(TCP/IP)** and a data link layer **(par. 2 discloses a LAN which utilizes the data link layer),** and a physical layer **(par. 5 discloses DSL lines used in the physical layer).**

Rosner teaches in fig. 3 and col. 2 line 56 to col. 3 lines 7 teaches a first universal asynchronous receiver and transmitter (UART) **(38)** and a second UART **(39)** to perform communication over the data link layer.

See similar motivation as claim 1.

Regarding claim 8, Kudo discloses wherein the first network uses a dedicated medium **(fig. 7 teaches a dedicated medium between the first**

network elements 101-104).

Regarding claim 10, Kudo discloses wherein the second network uses a shared medium **(fig. 7 teaches a shared medium in the second network which is the IP network)**.

Regarding claim 12, Kudo discloses an interface apparatus of a network system, comprising: a first interface module based on a predetermined control protocol **(par. 23 element 101 with an interface function with the AV network through IEEE 1394 protocol)** connectable to a first network connected to the network system **(AV network)**, for transmitting/receiving a message to/from a control means an appliance composing the network system **(par. 23 teaches the interface for communicating with elements in the network)**, and a second interface module based on the control protocol connected to the first interface module, disconnected from the first network, and connectable to a second network connected to the home network system **(fig. 4 and par. 23 teaches an element with an interface to an IP network and an interface to an AV network where the networks are disconnected from each other)**.

However Kudo does not expressly disclose wherein the first interface includes a first universal asynchronous receiver and transmitter; and wherein the second interface module includes a second universal

asynchronous receiver and transmitter connected to the first universal asynchronous receiver and transmitter.

Rosner teaches in fig. 3 an interface apparatus **(17)** including a first universal asynchronous receiver and transmitter (UART) **(38)** and a second UART **(39).** Rosner teaches in fig. 3 and **col. 2 line 56 to col. 3 line 7** the first and second UART are serial interfaces and are connected to one another. The UARTs are connected through the CPU for communication **(col. 2 line 56 to col. 3 line 7 teaches the UART communicating with the UART of the other interface).** The primary reference is modified by the appliance **[fig. 7 appliance 113]** including a first UART interface to network controller 101a and a UART interface to the IP network 200. Also manager **[network controller 101a]** is modified as having a UART interface to the network of element 113 and another UART interface to the network 200.

See similar motivation as claim 1.

Regarding claim 13, Kudo discloses in **fig. 7 and par. 34** which is connected to the network system through the first interface module according to a communication method of the home network system **fig. 7 and par. 34 teaches a device that is connected to a first network through a first interface.**

Regarding claim 14, Kudo discloses **par. 23** wherein the first and second
interface each respectively comprise an application layer using the message
(application service interface), a network layer **(TCP/IP)**, a data link layer **(par.
2 discloses a LAN)** and a physical layer **(par. 5 discloses DSL lines used in
the physical layer)** under the control protocol.

**However Kudo does not expressly discloses the data link layers
each respectively comprise the universal asynchronous receiver and
transmitter**.

Rosner teaches in fig. 3 and col. 2 line 56 to col. 3 lines 7 teaches a first
universal asynchronous receiver and transmitter (UART) **(38)** and a second
UART **(39)** to perform communication over the data link layer.

See similar motivation as claim 1.

Regarding claim 15, Kudo discloses wherein the first network uses a
dedicated medium **(fig. 7 teaches a dedicated medium between the first
network elements 101-104)**.

Regarding claim 17, Kudo discloses wherein the second network uses a
shared medium **(fig. 7 teaches a shared medium in the second network
which is the IP network)**.

Regarding claim 19, Kudo discloses an interface apparatus of a network system, comprising: a first interface module for transmitting/receiving a message to/from a control means **fig. 4 element 405 <u>an</u> appliance** composing the network system **par. 23 teaches a module for communicating a message with a network appliance**, and a second interface module based on a control protocol **(IEEE 1394 see par. 23)** connected to the first interface module **(fig. 4 teaches having an interface with the network)** and connectable to a network connected to the network system**(fig. 4 teaches having an interface with the network)**.

However Kudo does not expressly disclose wherein the first interface includes a first universal asynchronous receiver and transmitter; wherein the second interface module includes a second universal asynchronous receiver and transmitter connected to the first universal asynchronous receiver and transmitter.

Rosner teaches in fig. 3 an interface apparatus **(17)** including a first universal asynchronous receiver and transmitter (UART) **(38)** and a second UART **(39)**. Rosner teaches in fig. 3 and **col. 2 line 56 to col. 3 line 7** the first and second UART are serial interfaces and are connected to one another. The UARTs are connected through the CPU for communication **(col. 2 line 56 to col. 3 line 7 teaches the UART communicating with the UART of the other interface)**. The primary reference is modified by the appliance **[fig. 7 appliance 113]** including a first UART interface to network controller 101a and a UART interface to the IP network 200. Also manager **[network controller 101a] is**

modified as having a UART interface to the network of element 113 and another UART interface to the network 200.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Kudo to include utilizing a UART interface. One would be motivated as such in order to implement a cost effective element that can efficiently convert and transfer data to different networks **col. 1 lines 54-62.**

Regarding claim 20, Kudo discloses in par. **23** wherein the first interface comprises an application layer using the message **(application service interface)**, a network layer **(TCP/IP)** and a data link layer under the control protocol **(par. 2 discloses a LAN)**, and the second interface comprises an application layer **(application service interface)**, a network layer **(TCP/IP)**, a data link layer **(par. 2 discloses a LAN)**, a physical layer **(par. 5 discloses DSL lines used in the physical layer)**.

Rosner teaches in fig. 3 and col. 2 line 56 to col. 3 lines 7 teaches a first universal asynchronous receiver and transmitter (UART) **(38)** and a second UART **(39)** to perform communication over the data link layer.

See similar motivation as claim 1.

Regarding claim 21, Kudo discloses wherein the network uses a shared

medium **(fig. 7 teaches a shared medium in the second network which is the**

IP network).

Conclusion

5.   Any response to this action should be **faxed** to (571) 173-8300 or **mailed** to:

> Commissioner of Patents
> P.O. Box 1450
> Alexandria, VA 22313-1450
>
> **Hand delivered responses should be brought to:**
> Customer Service Window
> Randolph Building
> 401 Dulany Street
> Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to DANIEL MITCHELL whose telephone number is

(571)270-5307. The examiner can normally be reached on Monday - Friday 8:00 am -

5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chirag G. Shah can be reached on 571-272-3144. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. M./
Examiner, Art Unit 2477
                        /Chirag G Shah/
                        Supervisory Patent Examiner, Art Unit 2477